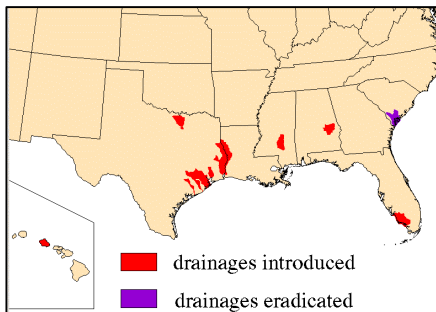




U.S. Army Corps of Engineers
Jacksonville District
Aquatic Plant Control Section
Jacksonville, Florida

Salvinia molesta – Possibly The World's Worst Weed

Salvinia molesta, a Federal Noxious Weed, has been found in Florida!! This species has only recently been introduced into the United States but is already spreading at an alarming rate. Since 1997, this species has been found in North Carolina, Hawaii, Alabama, Texas, Mississippi, South Carolina, Louisiana and now Florida.



Why is this weed possibly the “World’s Worst Weed”?

One reason is that *S. molesta* can double its numbers every 2.2 days under ideal conditions. If you consider this doubling rate and add just one plant to a water body, you will have over 8,000 plants within the first month. In a large water body, this amount may not be noticed, but after 2 months you will have more than 67,000,000 plants and by 4 months after the initial introduction, there could be over 4,500,000,000,000,000 plants!



Another reason why this invasive plant is considered possibly the world's worst weed is the way it grows. This plant reproduces as portions break off. This means that if a boat travels through a mat of these weeds there is a good chance that the plant will break into several pieces which each have the ability to grow into new plants. Also, the plant grows in large, thick mats. Mats of salvinia have been recorded to be as large as 96 square miles in area and up to 3 feet deep. These mats can block all sunlight from penetrating the infested water body thus eliminating all of the native submerged vegetation that is so important to the fish. Additionally, as the plants die and decay they can cause a decrease in dissolved oxygen in the water body. Both of these actions will severely reduce the habitat available for fish within the water body.

How do you identify this plant? *Salvinia* is an aquatic fern with oblong leaves, ½ to 1 ½ inches in length. During early stages of growth plants are smaller and leaves lie flat on the



water surface. As plants mature and aggregate into mats, leaves are folded and compress into upright chains. Leaf surfaces have rows of hairs which, when looked at under a magnifying lens, have an egg-beater or cage-like appearance. Submersed

fronds are filamentous, resembling roots, and concealing chains of egg-shaped sporocarps.

How was this plant introduced into the U.S.? *Salvinia molesta* was most likely introduced through the aquarium and landscaping trades. This plant has been sold under many common names including water velvet, salvinia, giant salvinia, African pyle, aquarium watermoss, kariba weed, water fern, and koi kandy. One possible route of infestation is that an individual may dump it in a nearby canal, pond, ditch or lake when it overgrows the home aquaria or koi ponds. From there the plant begins to spread and infest adjacent waterways.

What can be done to control this weed? Many people who have exotic animals and plants release them when they are no longer convenient to care for. They believe that this is the humane thing to do. On the contrary, many of these animals and plants are not adapted for life in our state. They may not be able to survive in the wild. Or worse yet, they may be able to out compete our native species since they have no predators in Florida. The lack of predators can allow the species to quickly overpopulate an area and displace our native species. So, the first thing that we need to do to stop invasive species such as salvinia from invading our state is to dispose of them properly and humanely. Excess salvinia should be placed in a garbage bag and disposed of in an upland area or land fill, not in your back yard canal or pond. Secondly, if this species or any other invasive exotic species is found, you should call the proper authorities.

What do invasives cost us? The treatment of invasives in Florida by private, local, state and federal organizations costs over \$30 million annually. This does not include the loss of revenues from tourism, shipping, fishing, forestry and other industries caused by invasive species.

If you see *Salvinia molesta* call the US Army Corps of Engineers, Aquatic Plant Control Section, at (904)232-2215 to report it.